

Application No. 10/750,771
Amendment dated January 3, 2007
Reply to Office Action of September 8, 2006

Docket No.: 0941-1764PUS1

REMARKS

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Claims 1-13 remain present in this application.

The specification has been amended. Reconsideration of the application, as amended, is respectfully requested.

Rejection under 35 USC 103

Claims 10-13 stand rejected under 35 USC 103 as being unpatentable over Montalvo et al., U.S. Patent 6,693,969, in view of Broughton, U.S. Patent 6,560,297, and further in view of Shinbo et al., U.S. Publication 2004/0053595. This rejection is respectfully traversed.

Independent claim 10 of the present application recites an up-conversion modulation loop for multi-mode mobile communication being used for performing signal modulation, detection and transmission, so as to integrate a global system for mobile communication (GSM) and the wideband code division multiple access (WCDMA) for signal emission. The loop performs the steps of transmitting a modulation phase signal wherein *a first modulation phase signal and a second modulation phase signal are transmitted to a phase modulator and a phase detector, the phase modulator being used for comparing the signals*, and the phase detector being used for detecting the phases of the two modulation phase signals; *generating a difference after the signal comparison by the phase modulator*; transmitting the generated difference to a signal transmitter and a first filter; comparing the signal frequencies and filtering the signals wherein the first filter transmits the difference to a phase frequency comparator and a loop low-pass filter so as to perform the comparing and the filtering; synthesizing the signals wherein a first adder is used for synthesizing the signals, and transmitting the synthesized signal to a voltage controlled

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oscillator; modulating the phase frequencies wherein the voltage controlled oscillator is used for modulating the input and output signals so as to make the modulated phases of the output and input signals consistent; outputting and emitting the signal to output the modulated signal with consistent phase to a power amplifier so as to accomplish the up-conversion modulation for the multi-mode mobile communication.

It is respectfully submitted that neither Montalvo, Broughton, nor Shinbo teach or suggest 1) transmitting a modulation phase signal wherein a first modulation phase signal and a second modulation phase signal are transmitted to a phase detector, 2) the phase modulator being used for comparing the signals, and 3) generating a difference after the signal comparing by the phase modulator.

It is respectfully submitted that the Examiner has incorrectly interpreted Montalvo as disclosing the modulator 24 and the phase detector 32 in FIG. 1. The modulator 24 of Montalvo receives an information signal in the form of I/Q symbol streams 36 and modulates the information signal onto an intermediate frequency 37, which it receives from a synthesizer 40. The modulator 24 thus delivers a modulated intermediate-frequency signal 42 to the phase detector 32. The phase detector 32 therefore does not receive an information signal in the form of I/Q symbol streams 36. Furthermore, the modulator 24 does not compare the information signal in the form of I/Q symbol streams 36, and the modulated intermediate-frequency signal 42 is not a difference after the information signal comparing by the modulator 24.

In view of the foregoing remarks, it is respectfully submitted that the prior art utilized by the Examiner fails to teach or suggest the up-conversion modulation loop of independent claim

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10 and its dependent claims. Reconsideration and withdrawal of the 35 USC 103 rejection are respectfully requested.

Allowable Subject Matter

Applicant gratefully acknowledges that the Examiner considers claims 1-9 to be allowable. In view of the foregoing remarks, it is respectfully submitted that all claims should be in condition for allowance.

Conclusion

Favorable reconsideration and an early Notice of Allowance are earnestly solicited.

Because the additional prior art cited by the Examiner has been included merely to show the state of the prior art and has not been utilized to reject the claims, no further comments concerning these documents are considered necessary at this time.

In the event that any outstanding matters remain in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

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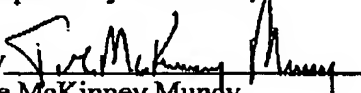
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: January 3, 2007

Respectfully submitted,

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